AMENDMENTS TO THE SPECIFICATION:

In the Specification

On page 2, in the paragraph beginning on line 1, make the following revisions:

Although both site-specific recombination and homologous recombination are useful mechanisms for genetic engineering of DNA sequences, targeted homologous recombination provides a basis for targeting and altering essentially any desired sequence in a duplex DNA molecule, such as targeting a DNA sequence in a chromosome for replacement by another sequence. Site-specific recombination [[hag]] has been proposed as one method to integrate transfected DNA at chromosomal locations having specific recognition sites (O'Gorman et al. (1991) Science 251: 1351; Onouchi et al. (1991) Nucleic Acids Res. 19: 6373). Unfortunately, since this approach requires the presence of specific target sequences and recombinases, its utility for targeting recombination events at any particular chromosomal location is severely limited in comparison to targeted general recombination.

On page 10, in the paragraph beginning on line 4, make the following revisions:

Figure 3C-1 and Figure [[3C-1]] 3C-2. Analog probe-directed DNA excision and repair when PNA site is inside heterologous insert site: Example of analog probes disrupting DNA replication wherein the analog probe binding site is inside the heterologous insert site. The thick lined loops or lines depict non-homologous (with respect to the target DNA) or heterologous insertion sequences.